Document Review: Final Historical Information Summary and Preliminary Health Risk Assessment

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GENERAL COMMENTS

* The calculations in Attachment 1 (C-16) are difficult to track without greater explanation.

* Baseline risk assessment (BRA) should be an evaluation of human health and environmental risk at which no action will be taken The effort contained herein is limited to human health for plutonium 239 only. This is a very limited approach with minimal usefulness. An approach which goes beyond the current situation of low impact might be more appropriate.

* In order for this to be a bounding assessment, assumptions in this document should be conservative.

* Volatile Organic Compounds and solvents have proven by their persistence in the soils at 903 and 881 that they do exist and don't evaporate or disperse totally, as had been assumed previously. Without actual measurements for such materials in soils and sediments there can be no definitive statements regarding their presence or their impact. The efforts under the CERCLA and IAG studies are to document rather than rationalize as has been done in the past.

SPECIFIC COMMENTS

* Page 46
BRA focuses on the most toxic of the site contaminants. However, it does not estimate the upper bound impact of OU 3 because it does not take into consideration the potential impact of summing all contaminants. While the text acknowledges the BRA has environmental impact, the discussion is only limited to human health risk

* Page 49
The source term should also include water and air effluents as well as resuspensions in the air pathway from 903, etc , areas

* Page 57
Plutonium does not exist by itself. Americium 241 ingrows and must be considered. Maximum ingrowth occurs at 80 years past purification at 20% of Pu 239+240 activity. The Pu considered should be Rocky Flats Pu which includes various Pu species and Americium 241.

* Page 69
ICRP 30 is a 1979 document, not a 1988 document.

* Page 71
The discussion assumes that the solubility class for Rocky Flats Pu is Y. No site specific data which identifies Rocky Flats Pu, either in effluents or resuspension from environmental deposits as Class Y, is referenced. Class W should be used in this document to reflect a worst case scenario

* Page 73
The ICRP, TGLD is not a proposed model for the respiratory tract. It has been formally adopted and incorporated into ICRP 26/30.

* Page 75
Pu 239 is not the only species of Pu involved at Rocky Flats. Am 241 is also involved. Class Y has not been identified as the solubility class for Pu.

* Table B1
Am 241 ground surface slope factor is 1 6E-12 not 1.6E-02. Pu 238 ingestion slope factor is 2 8E-10 not 2 8E-10. Pu 241 slope factor is 4.8E-12 not 4 8E-12.

* Page B-12
Paragraph beginning with "Unit risk estimates" . should read "Unit risk estimates for air, external exposure, drinking water. ." not inhalation The symbol for Absorption Factors is F_1.